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Dipole Moments of Some Halogen Polynitroalkanes S/020/60/132/06/42/068
B004/B005

charge in the chlorine compound, a small positive charge in the bromine-, and a strong positive charge in the iodine compound. In the C-I bond, the iodine is the positive end of the dipole. This is explained by the fact that in the presence of three C-NO₂ bonds the interaction between I and C is not limited to the formation of the C⁺-I⁻ bond. Iodine acts here as a donor of its undivided p-electron pair, and effects a further shift of electrons, and a partial transition of nitro groups into nitrito groups. This explains the chemical properties of halogen trinitromethanes described in Refs. 2-5. Besides, the methyl group becomes more positive by the vicinity of the three NO₂ groups which circumstance explains the behavior of 1,1,1-trinitroethane which is easily transformed (Ref. 6) into 1,1-dinitroethylene. The dipole moments of some geminal dinitro compounds are calculated from the experimental data. Also here a considerable decrease of the dipole moment of the carbon-halogen bond results in agreement with the experiment. There are 1 table and 6 references: 2 Soviet, 1 British, 1 German, and 2 American.

X

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81721
S/020/60/133/01/31/070
B011/B003

5.3/00
AUTHORS: Kazakova, V. M., Syrkin, Ya. K., Corresponding Member of
the AS USSR

TITLE: Electron Paramagnetic Resonance Spectra of Some Aromatic
and Aliphatic Metal Ketals¹ in Solutions

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol. 133, No. 1,
pp. 112-114

TEXT: The authors studied the above-mentioned spectra (EPR) of dilute
solutions of 1) phenanthrene quinone K-ketyl, 2) benzyl K-ketyl, 3) hexa-
methyl acetone K-ketyl, 4) diethyl pinacolin K-ketyl, and 5) triethyl
pinacolin K-ketyl in 1,2-dimethoxyethane. For the first substance the
authors obtained a hyperfine structure of five components (Fig. 1a) with
a splitting of 1.1-1.2 gauss. From this it may be seen that not all eight
protons are equivalent, but there are two different proton groups of
equal size (four protons each). The fact that a quintet was found for the
first substance is to be ascribed to the energy difference in the
localization of the unpaired electron at all centers from 1 to 8

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Electron Paramagnetic Resonance Spectra of Some Aromatic and Aliphatic Metal Ketyls in Solutions S/020⁸¹⁷²¹/60/133/01/31/070 B011/B003

(cf. Schemes). As regards energy, four positions are more favorable: 1, 3, 6, and 8. This leads to the resolution of the quintet in the spectrum. The data obtained indicate a considerable localization of the unpaired electron on the carbonyl hydrocarbons. The spectrum of the solutions of the second substance (also in tetrahydrofuran) shows only seven components of the hyperfine structure (Fig. 1b). This spectrum could not be resolved because the splitting was very small. However, also the spectrum obtained indicates that the ortho- and para-positions in the benzene rings are equivalent (as in benzophenone K-ketyl). The small splitting and the narrow absorption line are indicative of an even greater localization of the unpaired electron on the carbonyl hydrocarbon atoms than in the case of the first substance. The third substance yielded a very narrow singlet signal (0.5-0.7 gauss wide) in a fairly wide concentration range (Fig. 1v). The localization of the unpaired electron is the same as in the first substance. The missing hyperfine structure is ascribed to the absence of nuclei with non-zero spin in the neighborhood of the above-mentioned carbonyl hydrocarbon. However, there are protons in the molecule, which are only bound to the γ -hydrocarbon. It is, however, known that γ -protons cause no splitting. The fourth substance ✓

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Syrkin, Ya. K.

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S/02/60/133/02/35/068
B016, B060

5.3.200

AUTHORS:

Moiseyev, I. I., Vargaftik, M. N., Syrkin, Ya. K., Corresponding Member of the AS USSR

TITLE:

The Mechanism of the Reaction of Palladium Salts With Olefins in Hydroxyl-containing Solvents

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol. 133, No. 2,
pp. 377-380

TEXT: In the authors' opinion, a participation of the HO⁻ ions in the reaction mentioned in the title appears to be little probable. Under the conditions mentioned in Ref. 1, the reaction of the π-complex with the HO⁻ ions is evidently accompanied by another reaction with the halide ions. This reaction leads to the formation of organohalogen compounds which are fairly stable under experimental conditions (the concentration of Br⁻ or Cl⁻ was 10¹⁰-10¹² times higher than the OH⁻ concentration, Ref. 1). Nevertheless, such a scheme does not explain satisfactorily the high selectivity of the oxidation process in which the yield of the

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...ances capable of

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The Mechanism of the Reaction of Palladium Salts S/02/60/133/02/35/068
With Olefins in Hydroxyl-containing Solvents B016/B060

oxidizing the palladium developed in the reaction, reaction (3) can be evidently used for the preparatory stage in the production of vinyl esters. The overall reaction in the presence of benzoquinone (see scheme) shows that also palladium is oxidized besides reaction (3). The authors' experiments further revealed that the above-mentioned complex reacts readily with alcohol and yields acetal as the main product (4). In the presence of p-benzoquinone, the reduction of $PdCl_2$ is accompanied by an oxidation of metallic Pd by way of ethylene in alcoholic solutions. This makes it possible for this reaction to be utilized in the direct production of acetals from olefins (see scheme). Also copper-salt solutions can be used as oxidizers in alcoholic solutions. The data obtained confirm the opinion that the decomposition of the Π -complex in the hydroxyl-containing solvents takes place by way of the intermediate formation of vinyl compounds. The information supplied by the authors does not answer the question as to which of the two reactions (conversion of the Π -complex into I or into II) represents the first stage of the decomposition. However, the assumption of conversion of II into a vinyl compound proceeding more quickly than the acidolysis of II, and

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BOROD'KO, Yu.G.; SYRKIN, Ya.K.

Intensity of the infrared absorption of the carbonyl bond in sydrones
and tropone, and its polarity. Dokl. AN SSSR 134 no.5:1127-1130
0 '60. (MIRA 13:10)

1. Moskovskiy institut tonkoy khimicheskoy tekhnologii im. M.V.
Lomonosova. 2.Chlen-korrespondent AN SSSR (for Syrkin).
(Sydrones) (Cycloheptatrienone) (Carbonyl group--Spectra)

S/081/62/000/001/005/067
B156/B101

AUTHORS: Savitskiy, A. V., Syrkin, Ya. N.

TITLE: Mechanism and thermodynamics of the oxidation of ferrocene and ruthenocene by iodine

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 1, 1962, 62, abstract 1B450 (Iz. po khimii i khim. tekhnol. (Gor'kiy, no. 1, 1961, 165-170)

TEXT: The kinetics and thermodynamics of the oxidation of ferrocene (F) and ruthenocene (R) in C_6H_6 and C_2H_5OH by iodine have been studied by spectro-photometry at various temperatures. It is shown that during the reaction, tri- and pentaiodides of ions of F and R are formed in C_6H_6 . The ionization potentials of F and R are assessed (~ 6 ev). The authors consider that the cation of ruthenocene is thermodynamically more stable than the cation of ferrocene (F_m^+). The reaction is 1st order with respect to F and 2nd order with respect to iodine. The following were determined for the limiting

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Mechanism and thermodynamics ...

stage: $F^{\ddagger} = 16$ kcal/mole, $\Delta H^{\ddagger} = 6.5$ kcal/mole, $\Delta S^{\ddagger} = -32$ entropy units.
Evidently the iodine atom formed in the reaction $F + 2I_2 \rightarrow FI_3 + I$ oxidizes

the second molecule of F by a reaction with a low activation energy. For
the reaction in C_2H_5OH , the heat of solvation of Fm is assessed as

40 - 50 kcal/mole; the rate of the reaction is proportional to the concentra-
tion of F to the first power, and to the concentration of I_2 to the power
of 3/2. Ion pairs are formed in the C_6H_6 and solvated ions in C_2H_5OH .

[Abstracter's note: Complete translation.]

Card 2/2

KLIMENKO, N.M.; MOISEYEV, I.I.; SYRKIN, Ya.K.

Synthesis of a benzonitrile derivative of allylpalladium chloride.
Izv. AN SSSR. Otd.khim.nauk no.7:1355 Jl '61. (MIRA 14:7)

1. Institut tonkoy khimicheskoy tekhnologii im. M.V. Lomonosova.
(Palladium compounds)

SYRKIN, Ya.K.; KAZAKOVA, V.M.

Electron paramagnetic resonance spectrum of β -carotene.
Izv. AN SSSR. Otd.khim.nauk no.8:1527 Ag '61. (MIRA 14:8)

1. Institut tonkoy khimicheskoy tekhnologii im. M.V. Lomonosova.
(Carotene—Spectra)

BELOVA, V.I.; SYRKIN, Ya.K.

Magnetic susceptibility of salicylalimine derivatives and of
some other organic compounds. Izv.AN SSSR.Otd.khim.nauk
no.10:1903-1904 O '61. (MIRA 14:10)

1. Institut obshchey i neorganicheskoy khimii im. N.S.Kurnakova.
(Salicyaldehyde-Magnetic properties)

24941

54130

AUTHORS: Borod'ko, Yu. G. and Syrkin, Ya. K.

S/192/61/002/004/004/004

D217/D306

TITLE: Intermolecular reaction of Cl₂ and I₂ with some organic compounds

PERIODICAL: Zhurnal structurnoy khimii, v. 2, no. 4, 1961,
480 - 483

TEXT: The authors studied the formation of intermolecular complexes between molecular chlorine and iodine and certain organic compounds with potential donor properties, by examining the infra-red spectra of the products. The spectra were taken on a U.R. - 10 spectrophotometer. The interaction of chlorine with various substituted benzenes has been studied by this method. As Mulliken has pointed out the interaction is of an acceptor-donor character, the energy of which depends on the integral overlap between the highest full orbital of the donor and the lowest vacant orbital of the acceptor. This led Mulliken to

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Intermolecular reaction...

conclude that the most probable structure for the benzene-halogen complexes would be where the halogen molecule is parallel to the plane of the benzene ring, as this would allow for a maximum overlap of orbitals. In complexes of such geometry the chlorine molecule has a center of symmetry; therefore, the Cl-Cl vibration would not absorb in the infrared. The experiment showed that I₂, Cl₂ and Ph₂ absorbed intensively in solutions of benzene and its derivatives. Consequently the benzene-halogen complexes can be represented as having the halogen molecule perpendicularly to the plane of the benzene ring along its axis of symmetry, with the atoms of the halogen molecule being non-equivalent and thus absorbing in the infrared. Complex formation changes the symmetry and shape of the molecular orbital to achieve overlap with the donor orbitals which alters the frequency of absorption of the Cl-Cl bond. This distortion depends on the electron density in the ring; the greater the availability of electrons in the donor, the greater is the frequency shift in the complex. This is borne out by the re-

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sults quoted. Molecular Cl₂ absorbs at 557.5 cm⁻¹ in a gaseous state. The absorption in solution is: in trichlorobenzene, 540 cm⁻¹; in benzene, 530 cm⁻¹; in toluene, 527 cm⁻¹; and in p-xylene, 524 cm⁻¹. The spectra were taken in freshly prepared solutions at 10 - 15°C. On standing the p-xylene solution began to show absorption at 550 cm⁻¹ indicating chlorination of the solvent molecules. Further supporting evidence is given by X-ray studies of crystalline forms of the additive complexes. Double bonds can also act as donors. An infrared spectrum of iodine in freshly prepared cyclohexene solution showed a new bond at 1624 cm⁻¹, which is evidently due to the double bond. Shift of absorption from 1650 cm⁻¹ to 1624 cm⁻¹ probably indicates a π complex formation. Halogens also interact with polar molecules containing N and O atoms, which can donate their lone pair of electrons. Donor-acceptor interaction brings dipole in the halogens, which bonds the halogen to the donor. In the spectrum of the system I₂ - Tetrahydrofuran (THF) splitting of the bands 915 cm⁻¹ and 1072 cm⁻¹ is found. The bands are due

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to the symmetrical and unsymmetrical vibrations respectively of the group C=O-C. The new bands at 890 cm^{-1} and 1053 cm^{-1} correspond to the same vibration in the THF-I₂ addition complex. The I₂ molecule is arranged along the bisector of the valency angle C-O-C. Evidently similar is the character of the interaction in the system Tropone-I₂. The spectrum of this system contains new bands at frequencies 1571 cm^{-1} and 1631 cm^{-1} , besides the ordinary tropone bands at 1644 cm^{-1} and 1599 cm^{-1} . The intensity of the new bands increases with increasing iodine concentration, whereas the effect is the reverse on the standard tropone bands. Lowering of the temperature has an analogous effect. The interaction is localized on the oxygen. From the temperature-dependence of the intensity of the carbonyl peaks over the range 4 - 60°C the enthalpy, entropy and the free energy of the molecular complex were evaluated. [Abstractor's note: Method of evaluation not given.] the values $\Delta H = -6.6 \text{ Kcal/mole}$, $\Delta S = -16.5 \text{ E.U.}$ and $\Delta F = 1.7 \text{ kcal/mole}$.

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S/078/61/006/002/016/017
B017/B054

AUTHORS: Belova, V. I., Syrkin, Ya. K., Markov, V. P., Tsapkina, I. V.

TITLE: Magnetic Susceptibility of Uranyl Compounds

PERIODICAL: Zhurnal neorganicheskoy khimii, 1961, Vol. 6, No. 2,
pp. 495 - 497

TEXT: As had been found by V. P. Markov and I. V. Tsapkina (Ref. 1), the uranyl compounds UO_2SO_4 , $\text{UO}_2(\text{NO}_3)_2$, UO_2Cl_2 , and $\text{UO}_2\text{C}_2\text{O}_4$ may add 1 - 6 molecules of water, urea, acetamide, etc. The authors studied the magnetic susceptibility of 26 such addition compounds. Results of these investigations are compiled in a table. It was found that in the compounds $(\text{CN}_3\text{H}_6)_2[\text{UO}_2(\text{C}_2\text{H}_4)_2\text{CO}(\text{NH}_2)_2]$ and $\text{Cs}_2[\text{UO}_2(\text{C}_2\text{O}_4)_2(\text{H}_2\text{O})_2]$ the paramagnetic properties depended on temperature. In various compounds, the diamagnetic component is nonuniform, and variable with the number of addenda, the

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Magnetic Susceptibility of Uranyl Compounds S/078/61/006/002/016/017
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structure of addenda, and the binding character. The addition compounds of uranium with urea, acetamide, water, etc. are of the donor-acceptor type. The addenda influence the electron orbits, and are characterized by the change in diamagnetic susceptibility and the higher frequency of the paramagnetism. Some of the compounds were synthesized by R. N. Shchelokov. There are 1 table and 4 references: 1 Soviet, 1 US, 1 British, and 1 Indian.

ASSOCIATION: Institut obshchey i neorganicheskoy khimii im. N. S. Kurnakova Akademii nauk SSSR (Institute of General and Inorganic Chemistry imeni N. S. Kurnakov, Academy of Sciences USSR)

SUBMITTED: September 14, 1960

Card 2/4
2

BELOVA, V.I.; SYRKIN, Ya.K.; BARANOVA, L.I.

Magnetic susceptibility of compounds of platinum (II) with
amines. Zhur. neorg. khim. 6 no.3:625-629 Mr '61.
(MIRA 14:3)
I. Institut obshchey i neorganicheskoy khimii imeni N. S.
Kurnakova AN SSSR.
(Platinum compounds)
(Amines)

S/078/61/006/004/009/018
B121/B216

AUTHORS: Belova, V. I., Syrkin, Ya. K., and Babayeva, A. V.

TITLE: Magnetic susceptibility of nickel complexes

PERIODICAL: Zhurnal neorganicheskoy khimii, v. 6, no. 4, 1961, 830-834

TEXT: The magnetic susceptibility of 25 freshly prepared nickel complexes containing amino groups was measured at 293°K and at 78°K. The results are recorded in Table 1. The synthesis of these complexes is described in Ref. 6 (A. V. Babayeva, Yang Wei-ta, Zh. neorgan. khimii, 5, 2735 (1960); A. V. Babayeva, Chang Shou-kang, Zh. neorgan. khimii, 5, 2167, 2174 (1960)). Of the various ammines studied, only $\text{Ni}(\text{SO}_4)_2 \cdot 4\text{CH}_3\text{OH}$ was not paramagnetic. Repeated measurements showed that its susceptibility varied considerably (Table 3). Susceptibility measurements on the compound $\text{Ni}(\text{en})_2(\text{NO}_2)_2$ were also carried out at higher temperatures (Table 2). At 130°K the compound exhibits a thermochromic effect (from blue-purple to red). The magnetic properties and X-ray patterns of the nickel amines show that the formation of octahedral complexes with $4s4p^34d^2$ bonds is

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Magnetic susceptibility of ...

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characteristic of nickel. The tendency of nickel towards octahedral coordination is demonstrated by M. A. Poray-Koshits (Ref. 8: M. A. Poray-Koshits, E. K. Yukhno, A. S. Antsyshkina, and L. M. Dikareva, Kristallografiya, 2, 371 (1957)) et al. by using $\text{Ni}(\text{NH}_3)_3(\text{NCS})_2$ as an example. In the latter complex, a thiocyano group forms a bridge between two nickel atoms by forming an Ni - N and an Ni - S bond. Further, the magnetic susceptibility of $\text{Rb}_2\text{NiCl}_4 \cdot 1.6\text{H}_2\text{O}$ and Rb_2NiCl_4 was measured at different temperatures (Table 4). The latter compound was supplied by M. A. Poray-Koshits. The authors thank M. A. Poray-Koshits for his advice and interpretation of the structure of the nickel compounds, and G. G. Afanas'yev, Yang Wei-ta and Chang Shou-kang for preparing and analyzing the initial substances. There are 4 tables and 9 references: 6 Soviet-bloc and 3 non-Soviet-bloc.

ASSOCIATION: Institut obshchey i neorganicheskoy khimii im. N. S. Kurnakova Akademii nauk SSSR (Institute of General and Inorganic Chemistry imeni N. S. Kurnakov, Academy of Sciences USSR)

Card 2/2

BOROD'KO, Yu.G.; SYRKIN, Ya.K.

Resonance splitting of the carbonyl band of sydnone in the
infrared spectrum. Opt.i spektr. 11 no.4:482-485 O '61.
(MIRA 14110)

(Carbonyls--Spectra) (Sydnone--Spectra)

BOROD'KO, Yu.G.; SYRKIN, Ya.K.

Molecular compounds of diphenyloctopropenone, tropone and
benzophenone with hydrogen chloride. Dokl. AN SSSR 136 no.6:1335-
1338 F '61. (MIRA 14:3)

1. Chlen-korrespondent AN SSSR.
(Cyclopropenone)
(Cycloheptatrienone) (Benzophenone)
(Hydrochloric acid).

BOROD'KO, Yu.G.; SYRKIN, Ya.K.

Intermolecular interaction between tetrahydrofuran and hydrogen chloride. Dokl. AN SSSR 139 no.1:102-105 J1 '61. (MIRA 14:7)

1. Moskovskiy institut tonkoy khimicheskoy tekhnologii im. M.V. Lomonosova. 2. Chlen-korrespondent AN SSSR (for Syrkin).
(Furan) (Hydrochloric acid)

SHIDLOVSKAYA, A.N.; SYRKIN, Ya.K.

Dipole moments of certain imides and diphenylcyclopropanone.
Dokl. AN SSSR 139 no.2:418-419 J1 '61. (MIRA 14:7)

1. Moskovskiy institut tonkoy khimicheskoy tekhnologii im.
M.V. Lomonosova. 2. Chlen-korrespondent AN SSSR (for Syrkin).
(Propenone--Dipole moments)

VARGAFTIK, M.N.; MOISEYEV, I.I.; SYRKIN, Ya.K.

Kinetics of cyclohexane oxidation by palladium salts in aqueous
solutions. Dokl. AN SSSR 139 №.6:1396-1399 Ag '61.
(MIRA 14:8)

1. Moskovskiy institut tonkoy khimicheskoy tekhnologii im. M.V.
Lomonosova. 2. Chlen-korrespondent AN SSSR (for Syrkin).
(Cyclohexane) (Oxidation) (Palladium chloride)

VARGAFTIK, M.N.; MOISEYEV, I.I.; SYRKIN, Ya.K.; YAKSHIN, V.V.

Formation of allyl esters in the reaction of higher olefins with
palladium chloride in solutions of anhydrous carboxylic acids.
Izv. AN SSSR. Otd.khim.nauk no.5:930-931 My '62. (MIRA 15:6)

1. Institut tonkoy khimicheskoy te'dhnologii im. M.V.Lomonosova.
(Olefins) (Palladium chloride) (Esters)

BELOVA, V.I.; SYRKIN, Ya.K.; GOLOVNYA, V.A.; NI TSZYA-TSZYAN' [Ni Chia-Chien]

Magnetic susceptibility of compounds of platinum with nitriles.
Zhur.neorg.khim. 7 no.3:479-481 Mr '62. (MIRA 15:3)

1. Institut obshchey i neorganicheskoy khimii imeni N.S.Kurnakova
AN SSSR.
(Platinum compounds--Magnetic properties) (Nitriles)

SYRKIN, Ya.K.

Problems in the theory of chemical bonds in organic chemistry.
Zhur. VKHO 7 no.4:401-410 '62. (MIRA 15:8)

1. Chlen-korrespondent Akademii nauk SSSR.
(Chemistry, Organic) (Chemical bonds)

SYRKIN, Ya.K.

Effective charges and electronegativity. Usp. khim. 31
no.4:397-416 '62. (MIRA 16:8)

l. Institut obshchey i neorganicheskoy khimii AN SSSR imeni
Kurnakova.

SHOTT-L'VOVA, Ye.A.; SYRKIN, Ya.K.; LEVKOYEV, I.I.; DEYCHMEYSTER, M.V.

Dipole moments of merocyanines, derivatives of 2,4-imidazolidinedione and its thio and dithio substituents. Dokl.AN SSSR 145 no.6:1321-1323 Ag '62. (MIRA 15:8)

1. Moskovskiy institut tonkoy khimicheskoy tekhnologii im. M.V. Lomonosova i Vsesoyuznyy nauchno-issledovatel'skiy kinofotoinstitut. 2. Chlen-korrespondent AN SSSR (for Syrkin). (Merocyanines--Dipole moments) (Hydantoin)

KISTENEVA, M.S.; SYRKIN, Ya.K.

Alkylation kinetics of 2-acetylmethylene-3-ethylbenzothiazoline
(study of active seven-membered complexes). Dokl. AN SSSR
146 no.1:100-101 S '62,
(MIRA 15:9)

1. Moskovskiy institut tonkoy khimicheskoy tekhnologii im. M.V.
Lomonosova. 2. Chlen-korrespondent AN SSSR (for Syrkin).
(Benzothiazoline) (Alkylation)

SAVITSKIY, A.V.; SYRKIN, Ya.K.

Quantum yields of iodine photodissociation in solutions.
Dokl. AN SSSR 146 no.3:649-651 S '62. (MIRA 15:10)

1. Moskovskiy institut tonkoy khimicheskoy tekhnologii im.
M.V.Lomonosova. 2. Chlen-korrespondent AN SSSR (for Syria).
(Iodine) (Photochemistry) (Quantum chemistry)

VARGAFTIK, M.N.; MOISEYEV, I.I.; SYRKIN, Ya.K.

Kinetics of ethylene oxidation by palladium salts in
aqueous solutions. Dokl. AN SSSR 147 no.2:399-402
(MIRA 15:11)
N '62.

1. Moskovskiy institut tonkoy khimicheskoy tekhnologii
im. M.V. Lomonosova. 2. Chlen-korrespondent AN SSSR
(for Syrkin).
(Ethylene) (Oxidation) (Palladium salts)

S/062/63/000/002/018/020
B144/B#86"

AUTHORS: Syrkin, Ya. K., and Kazakova, V. M.

TITLE: Structure of aromatic hydrocarbon anions

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Otdeleniye khimicheskikh nauk, no. 2, 1963, 382 - 384

TEXT: A short survey is made of data published on the chemical reactions of alkali metals with hydrocarbons and on the conclusions drawn from the epr-spectra. The hyperfine structure found by previous authors for the anions of these hydrocarbons is confirmed and explained based on the reactions of K with toluene (1), dibenzyl (II), and diphenyl methane (3). The formation of anions is assumed to proceed from isomers which have a low energy difference ΔE between the outer occupied and the inner free molecular shells. ΔE was 1.05β for the toluene isomer and 0.4β for the dibenzyl isomer. The anion structures suggested are: 1) (); 2) (); 3) ( and ().

ASSOCIATION: Institut tonkoy khimicheskoy tekhnologii im. M. V. Lomonosova
~~Card 4/2~~ (Institute of Fine Chemical Technology imeni M. V. Lomonosov) ✓

SYRKIN, Ya.K.

Reply to S.S. Batsanov's article. Zbir. fiz. khim. 37 no.6:
1422-1424 Je '63.
(Chemical bonds) (Batsanov S.S.)

KAZAKOVA, V.M.; SYRKIN, Ya.K.; LIPINKD, G.M.

Electron paramagnetic resonance spectrum of potassium-ketyl
p,p-dimethylbenzophenone. Zhur.strukt.khim. 4 no.6:915-916
N-D '63. (MRA 17:4)

1. Moskovskiy institut tonkoy khimicheskoy tekhnologii imeni
Lomonosova.

MOISEYEV, I.I.; VARGAFTIK, M.N.; SYRKIN, Ya.K.

Kinetic isotope effect of ethylene oxidation by palladium chloride.
Izv. AN SSSR. Otd.khim.nauk no.6:1144-1145 Je '63. (MIRA 16:7)

1. Institut tonkoy khimicheskoy tekhnologii imeni Lomonosova.
(Ethylene) (Oxidation) (Palladium compounds)

VARGAFTIK, M.N.; MOISEYEV, I.I.; SYRKIN, Ya.K.

Effect of chlorine ions on the rate of oxidation of ethylene by palladium chloride in aqueous solutions. Izv. AN SSSR. Otd.khim.nauk no.6:1147 Je '63. (MIRA 16:7)

1. Institut obshchey i neorganicheskoy khimii AN SSSR.
(Ethylene) (Oxidation) (Palladium chlorides)

MOISEYEV, I.I.; BELOV, A.P.; SYRKIN, Ya.K.

Interaction between propylene and palladium chloride in acetic acid solutions. Izv.AN SSSR.Ser.khim. no.8:1527-1528 Ag '63.
(MIRA 16:9)

1. Institut obshchey i neorganicheskoy khimii im. N.S.Kurnakova AN SSSR i Institut tonkoy khimicheskoy tekhnologii im. Lomonosova.
(Propene) (Palladium chloride)

SYRKIN, J.K.; OSZCZEPALEWSKA, T., inz. [translator]

Effective charges and electronegativity. Wiad chem 17 no.10:569-596
O '63.

1. Instytut Chemii Ogolnej i Nieorganicznej, Akademia Nauk ZSRR.

SYRKIN, Ya.M.; VISHNYAKOVA, R.N.

Plugging cements for extra-deep wells. T3ement 29 no.4:7-
10 Jl-Ag '63. (MIRA 16:11)

1. Yuzhgiprotsement.

NIKIFOROVA, A.V.; MOISEYEV, I.I.; SYRKIN, Ya.K.

Oxidation of alcohols with palladium salts in aqueous so-
lutions. Zhur. ob. khim. 33 no.10:3239-3242 O '63.
(MIRA 16:11)

MOISEYEV, I.I.; VARGAFTIK, M.N.; SYRKIN, Ya.K.

Equilibrium of complex-forming process between palladium chloride
and ethylene in aqueous solutions. Dokl. AN SSSR 152 no.1:147-150
(MIRA 16:9)
3 '63.

1. Institut obshchey i neorganicheskoy khimii im. N.S. Fursnakova
AN SSSR. 2. Chlen-korrespondent AN SSSR (for Syrkin).
(Palladium compounds) (Ethylene)

MOISEYEV, I.I.; VARGAFTIK, M.N.; SYRKIN, Ya.K.

Kinetic stages of ethylene oxidation by palladium chloride
in aqueous solutions. Dokl. AN SSSR 153 no.1:140-143 N '63.
(MIRA 17:1)

1. Institut obshchey i neorganicheskoy khimii AN SSSR.
2. Chlen-korrespondent AN SSSR (for Syrkin).

YEZUCHEVSKAYA, V.M.; SYRKIN, Ya.K.; DEYCHMAN, E.N.

Dielectric polarization of crystal hydrates of indiumr rubidium
sulfate. Zhur. neorg. khim. 9 no.6 1963 Je '63
(MIRA 17:8)

1. Institut obshchey i neorganicheskoy khimii imeni Kurnakova
AN SSSR.

MOISEYEV, I. I.; VARGAFTIK, M. N.; SYRKIN, Ya. K.

New π -allyl complex of palladium. Izv AN SSSR Ser Khim no. 4:
775 Ap '64. (MIRA 17:5)

π -Complex of palladium with triphenylcyclopropenyl. Ibid.:775-
776.

1. Institut tonkoy khimicheskoy tekhnologii im. M. V. Lomonosova
i Institut obshchey i neorganicheskoy khimii im. N. S.
Kurnakova AN SSSR.

BЕЛОВА, В.И.; СЫРКИН, Я.М.; ИППОЛИТОВ, Е.Г.; КОТЕЛ'НИКОВА, А.С.;
БАБЕШКИНА, Г.К.; ДОВЛЯТШИНА, Р.А.

Magnetic susceptibility of some rhenium compounds. Zhur.
strukt.khim. 5 no. 2:281-287 Mr-Ap '64. (MIRA 17:6)

1. Institut obshchey i neorganicheskoy khimii imeni N.S.
Kurnakova AN SSSR.

KOKOREVA, T.Yu., NEYMAN, L.A.; SYRKIN, Ya.K.; KIRILEVA, S.I.

Dipole moments of certain nitrones. Dokl. AN SSSR 196 no.2:
412-414 My '64. (ZhRA 17:7)

L. Moskovskiy institut tonkoy khimicheskoy tekhnologii imeni
Lomonosova i Institut biologicheskoy i meditsinskoy khimii
AMN SSSR. 2. Chlen-korrespondent AN SSSR (for Syrkin).

SYRKIN, Ya.K.; YEZHCHENSKAYA, V.M.

Dielectric polarization of clathrates. Zhur. strukt. khim. 5
no.3:387-391 My-Je '64. (MIRA 18:7)

1. Institut obshchey i neorganicheskoy khimii imeni N.S. Kurnakova
AN SSSR.

KARTSEV, G.N.; SYRKIN, Ya.K.; KRAVCHENKO, A.I.; MIRONOV, V.F.

Dipole moments of some germanium organic compounds. Zhur. strukt.
khim. 5 no.3:492-493 My-Je '64. (MIRA 18:7)

1. Moskovskiy institut tonkoy khimicheskoy tekhnologii imeni
M.V. Lomonosova.

L 53712-65 EWT(m)/EPF(c)/EPR/EWP(j)/EWA(c) Pg-4/Pf-4/Ps-4 RPL WW/RM
ACCESSION NR: AP5017167 UR/0192/64/005/004/0639/0639

AUTHOR: Kartsev, G. N.; Syrkin, Ya. K.; Kravchenko, A. L.; Mironov, V. F.

TITLE: Dipole moments of trimethylhalogermane

SOURCE: Zhurnal strukturnoy khimii, v. 5, no. 4, 1964, 639

TOPIC TAGS: dipole moment, germanium compound, halogenated organic compound

Abstract: The dipole moments of four monosubstituted trimethylgermanes $(\text{CH}_3)_3\text{GeX}$, where X = F, Cl, Br, and I, were measured at 25° in benzene by the heterodyne method. The dipole moments found were 2.51, 2.78, 2.84, and 2.81, respectively. The investigated compounds were compared with analogous compounds of carbon and silicon, indicating that the variation of the dipole moment from fluoro-substituted to iodo-substituted compounds is of the same character as for the carbon compounds, but differs from the change in the moment in this series for silicon compounds. The ratio $\mu(\text{R}_3\text{GeX})/\mu(\text{R}_3\text{CX})$ was an average of 1.30 for all the compounds; this was not observed for the corresponding silicon compounds. The moment of the Ge-F bond is estimated at 2.80 D. and that of the Ge-I bond at 3.10 D.

Orig. art. has 2 tables.

Card 1/2

L 53712-65

ACCESSION NR: AP5017167

ASSOCIATION: Moskovskiy institut tonkoy khimicheskoy tekhnologii im. M. V. Lomonosova (Moscow Institute of Fine Chemical Technology)

SUBMITTED: 17Apr64

ENCL: 00

SUB CODE: OG, EM

NO REF Sov: 000

OTHER: 002

JPRS

Card

DR
2/2

SYRKIN, Ya.K.; YEZHNEVSKAYA, V.M.

Dielectric polarization of crystal hydrates. Zhur. strukt. khim.
5 no.6:864-877 N-D '64. (MIRA 18:4)

1. Institut obshchey i neorganicheskoy khimii imeni Kurnakova
AN SSSR.

KARTSEV, G.N.; KOKOREVA, I.Yu.; SYRKIN, Ya.K.; MIRONOV, V.F.; CHERNYSHEV, Ye.A.

Dipole moments of organic compounds with a Si-Si bond. Zhur. strukt. khim.
6 no.2;309-310 Mr-Ap '65. (MIRA 18:7)

1. Moskovskiy institut tonkoy khimicheskoy tekhnologii imeni Lomonosova.

LARIN, G.M.; DZIOMKO, V.M.; DUNAYEVSKAYA, K.A.; SYRKIN, Ya.K.

Electron paramagnetic resonance of some inner-complex compounds
of copper (II). Zhur. struk. khim. 6 no.3:391-396 My-Je '65.
(MIRA 18:8)

I. Institut obshchey i neorganicheskoy khimii imeni N.S. Kurnakova
AN SSSR i Institut khimicheskikh reaktivov i osobo chistiykh
khimicheskikh veshchestv.

YEZUCHEVSKAYA, V.M.; SYRKIN, Ya.K.; SHCHELOKOV, R.N.

Dielectric polarization of crystal hydrates of some uranyl compounds. Zhur. neorg. khim. 9 no.7:1758-1859 Jl '64.
(MIRA 17;9)

1. Institut obshchey i neorganicheskoy khimii imeni Kurnakova
AN SSSR.

BELOVA, V.I.; SYRKIN, Ya.K.; IKRAMOV, Kh.U.

Magnetic susceptibility of the compounds of nickel with
nitriles. Zhur. neorg. khim. 9 no.7:1773-1775 J1 '64.
(MIRA 17:9)

1. Institut obshchey i neorganicheskoy khimii AN SSSR.

BELOVA, V.I.; SYEKIN, Ya.K.; TRAGGEYM, Ye.N.

Magnetic susceptibility of thiocyanate compounds of uranium
(IV) and uranyl. Zhur. neorg. khim. 9 no.11:2673-2674 N⁶⁴
(MIRA 18:1)

1. Institut obshchey i neorganicheskoy khimii AN SSSR.

SHAPIRO, B. S., KAZAKOVA, V. M., SHILKIN, Ye. S., akademik

Mechanism underlying the interaction of some aromatic nitro derivatives with alkali as studied by the electron paramagnetic resonance method. Dokl. AN BSSR 165 no.3:619-622 N '65.
(MTRA 18.11)

I. e. Moskovskiy institut trudykh khimicheskoy tekhnologii im.
M. V. Lomonosova.

SHAPIRO, R.I.; KAZAKOVA, V.M.; SYRKIN, Ya.K.

Study of some derivatives of aromatic ion radicals by the
electron paramagnetic resonance method. Zhur. strukt. khim.
6 no. 4:540-547 Jl-Ag '65 (VTPR 19:1)

I. Institut teorii khimicheskoy tekhnologii Iman M.V. Iman-
ova. Submitted February 17, 1965.

KOKOREVA, I.Yu.; SYRKIN, Ya.K., akademik; KROPACHEVA, A.A.; KASHNIKOVA, N.M.;
MPKHNINA, L.Ye.

Dipole moments of phosphonitrile chloride derivatives. Dokl.
AN SSSR 166 no.1:155-157 Ja '66.

(MIRA 19:1)

1. Submitted July 8, 1965.

L 18014-66 EWT(m)/EWP(j)/T WW/JW/RM
ACC NR: AP6003495 (N)

SOURCE CODE: UR/0020/66/166/001/0155/0157

AUTHOR: Kokoreva, I. Yu.; Syrkin, Ya. K.; Kropacheva, A. A.; Kashnikova, N. M.;
Mukhina, L. Ye.

ORG: none

TITLE: Dipole moments of phosphonitrile chloride derivatives

SOURCE: AN SSSR. Doklady, v. 166, no. 1, 1966, 155-157

TOPIC TAGS: dipole moment, phosphonitrile, organic nitrogen compound, organic phosphorus compound, organic imine compound

ABSTRACT: The dipole moments of phosphonitrile chloride trimer and 17 of its derivatives of the pyrrolidine, piperidine, morpholine, and ethylenimine series were measured in dilute benzene solutions at 25° by the heterodyne method. Atomic polarization was not taken into account, so that the true values are somewhat lower than the tabulated ones. The dipole moment of phosphonitrile chloride trimer is 0.93 D. In the hexa-derivatives studied, the presence of substituents is thought to distort the plane of the ring, causing an increase in the dipole moment (1.75 D for the hexapyrrolidine and 1.16 D for the hexapiperidine

UDC: 541.67

Card 1/2

L 13014-66
ACC NR: AP6003495

derivatives). In the case of the mono-derivatives, the dipole moment of the trimer differs markedly from the moments of the monopyrrolidyl (3.74 D), mono-piperidyl (3.67 D), monoethylenimyl (3.07 D), and monomorpholyl (1.91 D) derivatives. This substantial difference is attributed to the fact that phosphorus accepts the unshared pair of electrons of the nitrogen of the substituent in its 3d subshell. Orig. art. has: 1 table.

SUB CODE: 07 / SUBM DATE: 08Jul65 / ORIG REF: 001 / OTH REF: 006

Card 2/2 MJS

SYRKIN, Ya. M.

4
1/4A

✓ Use of high pressure in making ceramic plates. G. V. KUKO,
L. V. MISIULOVICH, AND YA. M. SYRKIN. Steklo i Keram., MT

9 [10] 8-10 (1952). — The use of high pressures in making floor

plates can be of distinct advantage. An increase from 250 to
500-600 kg./cm.² makes it possible to reduce the moisture of
mixes from 8-9 to 3-4% and thereby eliminate the need for dry-
ing before firing or at least to reduce the drying time. Increase
in pressure also makes it possible to reduce the firing temperature
by 40 to 50°.

B.Z.K.

2

RR
es

SYRKIN, Ya. M.

USSR/ Engineering - Ceramic properties

Card 1/1 Pub 104 - 8/9

Authors : Kukolev, G. V., Professor., and Syrkin, Ya. M.

Title : Properties of ceramic masses controlled by means of colloidal-chemical media

Periodical : Stek. i ker. 2, 23-29, Feb 1954

Abstract : The factors affecting the technical properties of a clay-water system are listed. Various colloidal-chemical means for controlling the properties of ceramic masses are discussed. Investigations showed that colloidal-chemical media make it possible to control such important technical characteristics of clayey masses as specific shear stress, consistency and tenacity after desiccation. Nine USSR references (1933-1950), Tables; graphs.

Institution:

Submitted:

SYRKIN, YA M

V G S R

Effect of the nature of sorbed ions on the wedge pressure in aqueous films and the water-retaining ability of clay and kaolin. G. V. Kukley and Ya. M. Syrkin (V. L. Lenin Polytech. Inst., Kharkov). *Krit. Zashch.* 17, 90-8 (1955). Discs of wet clay were squeezed between filter paper at pressure P (kg. wt./sq. cm.) for 10 min., and the vol. V of H_2O still remaining in 1 g. of sample was determined. At moderate P , equations $V\sqrt{P} \approx K_1$ and $V\sqrt{P} = K_2$ were valid for a clay and a kaolin, resp. The const. K_1 was 0.575 for natural clay and was 0.541 for Al sahd. clay, 0.556 for H clay, 0.555 for Ca clay, and 0.704 for Na clay. Also for kaolin, K_2 increased from Al to H to Ca to Na. In the region of P between 60 and 70 (for Al clay), between 80 and 90 (for Na clay), etc., V was independent of P , presumably because contact between solid particles was attained, and the above equations were invalid at higher P . When the cations in the Na clay were exchanged for other anions, V at a const. P was greatest for OH^- and decreased in the order $OH^- > Cl^- > SO_4^{2-} > Cl^- > Cl^-$. Also in the order $Cl^- > Cl^- > Cl^-$ (Engl. translation).

J. J. Bikerman

Syrkin, Ya

USSR/Chemical Technology - Chemical Products and Their Application. Silicates.
Glass. Ceramics. Binders, I-9

Abst Journal: Referat Zhur - Khimiya, No 19, 1956, 62359

Author: Strelkov, M., Danyushevskiy, S., Syrkin, Ya.

Institution: None

Title: Fast-Setting Portland Cement

Original
Periodical: Stroit. materialy, izdeliya i konstruktsii, 1956, No 2, 20-23

Abstract: Production of fast setting cement (FSC) of "200"- "300" grade can be effected on the basis of clinker containing (in %): C₃S 50-55, C₃A 2-5, C₄AF 17, and an adequate magnitude of specific surface of the cement is 3,000 cm²/g. When up to 10% granulated blast furnace slag are included specific surface must be 4,000 cm²/g. FSC of "300"- "400" grade must contain 6-8% C₃A and have a specific surface of 4,500-5,000 cm²/g.

Card 1/1

USSR /Chemical Technology. Chemical Products
and Their Application

I-12

Silicates. Glass. Ceramics. Binders.

Abs Jour: Referat Zhur - Khimiya, No 9, 1957, 31550

increases with increasing temperature of the slip, increased vacuum and on addition of coagulant in the form of CaO. Thus the output of a vacuum filter on filtration of a slip of Chasov-Yarskoye clay having the temperature of 20 and 60° increased from 6 to 20 kg/cm² hour. On preliminary drying of the clay, output of the filter is lowered, depending on duration of the drying. Thus on drying of Chasov-Yarskoye clay for 360 and 720 seconds the output dropped from 18 to 12 kg/cm² hour. It should be noted that on addition of coagulant the moisture content

Card 2/4

USSR /Chemical Technology. Chemical Products
and Their Application

I-12

Silicates. Glass. Ceramics. Binders.

Abs Jour: Referat Zhur - Khimiya, No 9, 1957, 31550

prising an after drying of "sukhar!" on a
steam-heated drum drier.

Card 4/4

USSR/Electricity - Semiconductors

G-3

Abs Jour : Ref Zhur - Fizika, No 5, 1957, 12151

when the potential wells and the potential barriers have commensurable widths, increasing the height of the barrier U_0 causes an increase in equivalent polarizability of the ions, and with this, an increase in the time required to establish the polarization, and a corresponding decrease in the relaxation frequency.

Card 3/3

25
SOV/101-58-6-11/13

The Improvement of the Lepaul Furnaces in the Cement Plants of the Chinese People's Republic

granules more uniformly. The drying chamber was divided into two parts (Figure 3). These measures raised the productivity of the furnaces to 29 tons/h, but increased the dust loss, the specific heat consumption, and the temperature of the clinker. There are 3 sets of diagrams and 1 table.

Card 2/2

15(6)

SOV/101-59-2-2/13

AUTHORS: Syrkin, Ya. M., Frenkel', M. B. and Kripitser, A. M.

TITLE: Quick-Setting Slag Portland Cements

PERIODICAL: Tsement, 1959, Nr 2, pp 3-6 (USSR)

ABSTRACT: The authors state that in 1960 the cement industry has to increase the symbol mark of cement to "425", and stop the production of cement below the "300" mark. Various ways have been proposed in order to achieve a better crushing strength of cement. P.P. Budnikov, G.A. Sokhatskaya, I.I. Kholin, A.L. Gershuns, I.L. Znachko-Yavorskiy, M.I. Strelkov, M.G. Kashperskiy, I.D. Zaporozhets, V.V. Kind, V.I. Satarin, F.F. Ladygin, A.A. Panarina and G.V. Kalishchuk, all studied manufacturing details which should improve the qualities of cement. Problems concerning the grounding fineness, mineralogical composition of the slag cements, and addition of the hardening acceleration ingredients of the slag portland cements were under construction. Yuzhgiprotsement (Southern Planning

Card 1/4

SOV/101-59-2-2/13

Quick-Setting Slag Portland Cements

Institute for Cement Industry Enterprises) has studied the problem of obtaining quick-hardening slag-portland-cement, with a hardening intensity similar to that of the portland-cement marked "400" - "500" for several years. Such cement might be obtained for rammed and plastic solutions under the following conditions: the cement composition must contain not less than 50% clinker and the fineness of the ground mixture, clinker - slag - gypsum, must attain 4000 to 5000 cm²/g. Clinker must contain tricalciumsilicate (C₃S) 50 to 60% and tricalciumaluminate (C₃A), not less than 6%. At the Dneprodzerzhinskiy tsementnyy zavod (Dneprodzerzhinsk Cement Plant) for slag-portland-cement, the optimum gypsum dosing is 5%, as shown in diagram 1. Diagram 2 shows that an increase in the fineness of ground slags, above the specific surface of 3000 to 4000 cm²/g, has little practical significance in relation to the crushing strength of cement. Tables 1 and 2 show chemical and mineralogical compositions of clinker, and the chemical composition of blast furnace

Card 2/4

SOV/101-59-2-2/13

Quick-Setting Slag Portland Cements

granulated slags, obtained at the Dneprodzerzhinsk Cement Plant, and of mixed slags, in proportion 1 : 1, produced by Krivorozhskiy and Dneprodzerzhinskiy metallurgicheskiye zavody (Krivoy Rog and Dneprodzerzhinsk Metallurgical Plants), respectively. The results of experiments carried out at the plant and at the institute of the Southern Planning Institute for Cement Industry Enterprises are compiled in tables 3 and 4, showing mechanical properties of the quick-hardening slag-portland-cement (rammed solution 1:3) and of the same cement (plastic solution), respectively. Table 5 shows the strength of the concrete made of portland cement "500", produced by the Belgorodskiy tsementnyy zavod (Belgorod Cement Plant). Diagrams 3 and 4 show the possible schemes of the two stage grinding of mixed material for cement manufacturing. From the experiments carried out by the Southern Planning Institute for Cement Industry Enterprises it is seen that the prime costs of the quick-setting slag-portland-cement are 25 - 30% lower than such costs of the portland-cement of the same marks.

Card 3/4

SOV/101-59-2-2/13

Quick-Setting Slag Portland Cements

It is projected, in 1959, to realize a mass production of the quick-hardening slag-portland-cement at a series of plants in the USSR. There are 2 diagrams, 2 graphs and 5 tables.

Card 4/4

15 (6)

SOV/101-59-5-8/11

AUTHOR: Syrkin, Ya. M.

TITLE: Evaporators of Slurry at the "Chung-kuo" Plant

PERIODICAL: Tsement, 1959, Nr 5, pp 27 - 28 (USSR)

ABSTRACT: The author states that the "Chung-kuo" Plant is equipped with concentrators of the Miag system, in operation since 1932. At present, 4 kilns include such concentrators. The humidity of the slurry is 34%. Burning of the raw mixture is done in kilns of 2.25 x 50, 3.0 x 41, and 2.85 x 60 m size. The angles of inclination are 6% for kiln Nr 1 and 5% for kilns Nr 2, 3 and 4. A concentrator (Figure 1) is a drum assembled of beams, with parts composing the body of the drum, and covered with steel sheets, forming the housing of the drum. The bottom part of the drum has a tuyère for supplying the dry material into the kiln. The gases escaping from the kiln enter into the concentrator through the tuyère. The slurry is fed into the concentrator from a container mounted on the upper part of the drum. The dimensions of the concentrators are 3.51 x 1.5 m for kiln Nr 1 and for the remain-

Card 1/2

SOV/101-59-5-8/11

Evaporators of Slurry at the "Chung-kuo" Plant

ing kilns 3.5 x 2.5 m. The driving motors are of 13 and 24 kW respectively. Inside, the drums contain 4,500 to 7,000 filling elements depending upon the size of the kiln in attendance. These elements have channels for a uniform and efficient distribution of the heat conveyed by the escaping gases. The slurry sticks to the channelled elements, dries, and after crushing is supplied to the kiln. The moisture content of the slurry is 6 to 10% and the temperature is 80 to 100. The author concludes that the operation of the concentrator must be thoroughly controlled with respect to the homogeneity of the slurry, the size of the produced granules, moisture content, and the synchronization of the operations of the drum and kiln.

There are 2 photographs.

Card 2/2

STREIKOV, M. [Strilekov, M.], kand.tekhn.nauk; KRYZHANOVSKAYA, I.
[KRYZHANOVSKAYA, I.], kand.tekhn.nauk; SYRKIN, Ya., kand.tekhn.
nauk; BLOKH, K., inzh.; DOLZHKOVA, G. [Dolzhkova, H.], inzh.

Colored slag cements. Bud.mat.i konstr. 2 no.1:31-32
F '60. (MIRA 13:6)
(Slag cement)

SYRKIN, Ya.M., kand.tekhn.nauk

Cement production in the Chinese People's Republic. Nauch.soob.
NIITSementa no.7:35-37 '60. (MIRA 14:5)

1. Yuzhgiprotsement.
(China—Cement industries)

STRELKOV, M.I.; KRYZHANOVSKAYA, I.A.; SYRKIN, Ya.M.; KIRYAYEVA, E.Ye.; ZDOROV, A.I.

Continuous preparing of raw mixes is the basis for the organization
of an automatically controlled concrete plant. TSement 26 no.5:14-18
S-O '60. (MIRA 13:10)

(Cement plants)

(Automation)

SYRKIN, Ya.M., kand.tekhn.nauk; GOL'DSHMIDT, E.M., inzh.

Silicate materials based on dust collected from waste gases of
rotary kilns. Stroi. mat. 7 no.2:17-19 F '61. (MIRA 14:3)
(Sand-lime products) (Dust Removal) (Cement kilns)

SYRKIN, Ya.M.; GOL'DSHMIDT, E.M.; SHOKOTOVA, B.G.; RYVKIND, N.D.

Properties of dust and ways of using it. TSemant 27 no. 2:11-12
Mr-Ap '61. (MIRA 14:5)
(Cement plants) (Salvage (Waste, etc.))

SYRKIN, Yakov Moiseyevich; FRENKEL', Mikhail Borisovich. Prinimal
uchastiye STRELKOV, M.I., kand.tekhn.nauk; KOMENDANT, K.P.,
red.; ZELENKOVA, Ye.Ye., tekhn. red.

[Chemistry and technology of slag portland cement] Khimiia i
tekhnologija shlakoportlandsementa. Kiev, Gosstroizdat USSR,
1962. 176 p.
(Portland cement)

VISHNYAKOV, V.N.; DOZHDEIKO, Y.A.; LYSOKHINA, D.S.; SYRKIN, Ya.M.

New cements for wells with high bottom temperatures. Neft. i gaz.
prom. no.4:20-23 6-D '63. (MIRA 17:12)

1. Gosudarstvennyy institut po proyektirovaniyu tsementnykh zavodov
v yuzhnykh rayonakh SSSR.

VISHNYAKOVA, R.N.; LYSUNKINA, D.S.; SYRKIN, Ya.M.; Prinimali uchastiye:
KARATANOVA, G.N.; KHOLODNYY, A.G.

Plugging cement for extra-deep oil and gas wells. Trudy IUzhgi-
protsementa no.4:108-126 '63. (MIRA 17:11)

SYRKIN, Ya.M.; FRENKEL', M.B.; NOVOSEL'SKIY, L.G.; MEL'NICHENKO, N.P.;
LEVYATOVA, L.I.

Industrial mastering of the production of quick-hardening
slag portland cement at the Kharkov Cement Plant. Trudy
IUzhgiprotsementa no.4:127-143 '63.
(MTRA 17:11)

SYRKIN, Yu.M.; KRYZHANOVSKAYA, I.A.; KANOVICH, Ye.G.; BOL'SHOVA, G.V.;
BUDAK, K.B.; KIRYAKOVA, N.Ye.

Raw material base and flow diagram for the manufacture of white
cement at the Zdolbunov Cement Plant. Trudy IZhGiprotsementa
(MIRA 17:12)
no.6:3-ii '64.

Ukrainian Institute of Hydrotechnics "YERKH", Ya. Mykhan, Tashkent, USSR

new technology for the preparation of sludge. Document 31 no. 2:
Sludge. (MRL 18:8)

i.e. "Nauchnyy Institut po proektirovaniyu i nauchno-issledovatel'skim
rezhimam "Yerghipotremonta."

OSADCHIY, L.K.; SYRKIN, Yu.G., inzh.tehnolog; VEKSHIN, K.D., mashinist
elektrovoza, Geroy Sotsialisticheskogo Truda; ONOPRIYENKO, L.N.,
mashinist elektrovoza; SHAROV, M.S.; MARKOVICH, I.A., mashinist-
instruktor

"Electric networks of the VL23 electric locomotive." Elek. i
tepl. tiaga. 5 no.6:44-45 Je '61. (MIRA 14:10)

1. Depo Dnepropetrovsk.(for Syrkin). 2. Depo Barabinsk.
Zapadno-Sibirskaia dorogi (for Sharov).
(Electric locomotives)

ACC NR: AP6035842

'A)

SOURCE CODE: UR/0413/66/000/020/0050/0050

INVENTOR: Lerman, A. P.; Levitskiy, Ye. F.; Syrkin, Yu. N.

ORG: none
TITLE: Machine for cutting seams. Class 19, No. 187069 /announced by Construction Project Bureau of the Chief Construction Mechanization Ministry of Transport Construction, SSSR (Proyektno-konstruktorskoye byuro Glavstroymekhanizatsii Ministerstva transportnogo stroitel'stva SSSR)
SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 20, 1966, 50

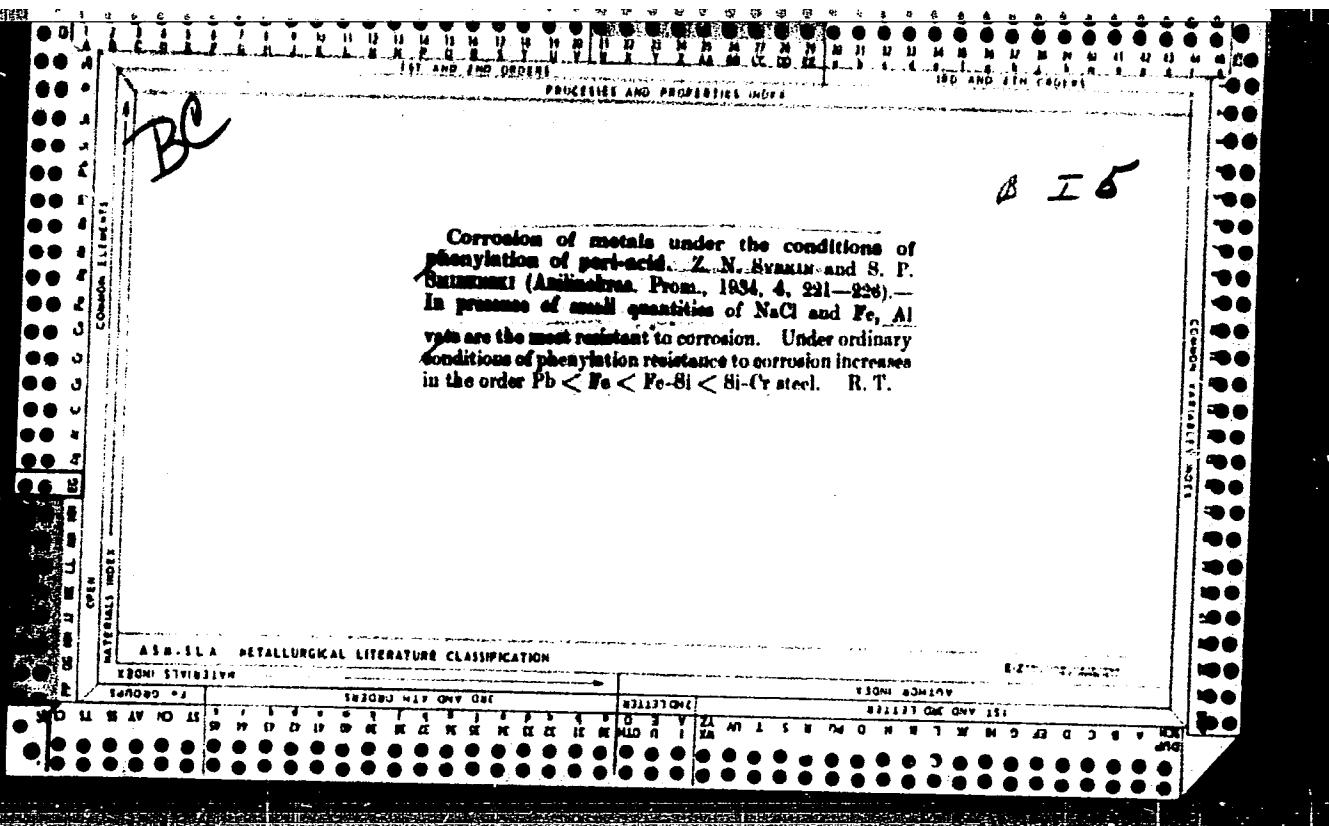
TOPIC TAGS: highway construction, ~~kighthwyxenginering~~, ~~cuttingmachines~~ construction machinery

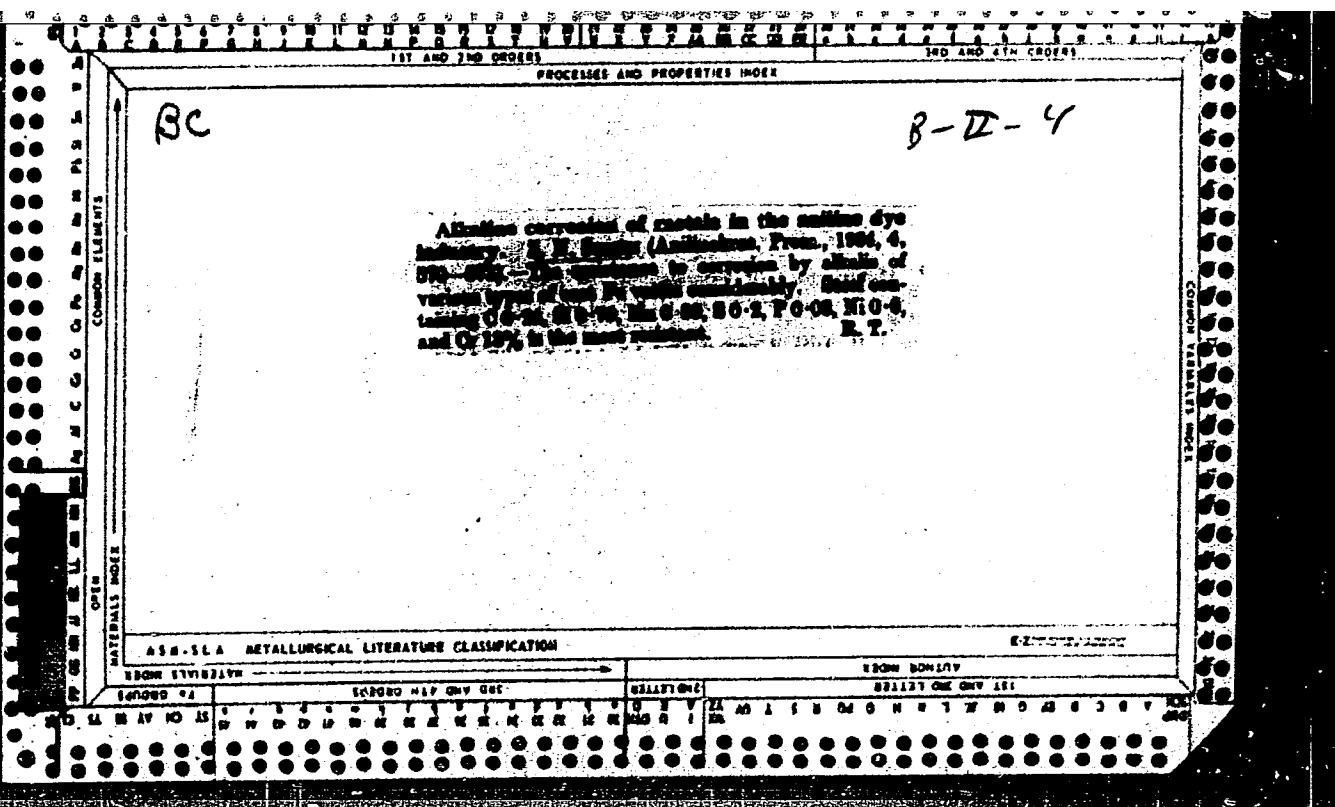
ABSTRACT: An Author Certificate has been issued for a machine for cutting joints in hardened road paving. It consists of a double-disk operating organ mounted on a wheeled frame, a device for cooling the disks, and a drive. To increase maneuverability and assure the disk's precise positioning in the seam, an extensible rotating support is mounted in the center of the wheeled frame; the support's axis of rotation is located in the cutting disk's plane of rotation. In order to automatically compensate for disk wear while cutting seams, the cutting disks can be mounted on vi-brating levers through actuating cylinders connected to the machine's frame and joined with a guide device. Orig. art. has: 1 figure.

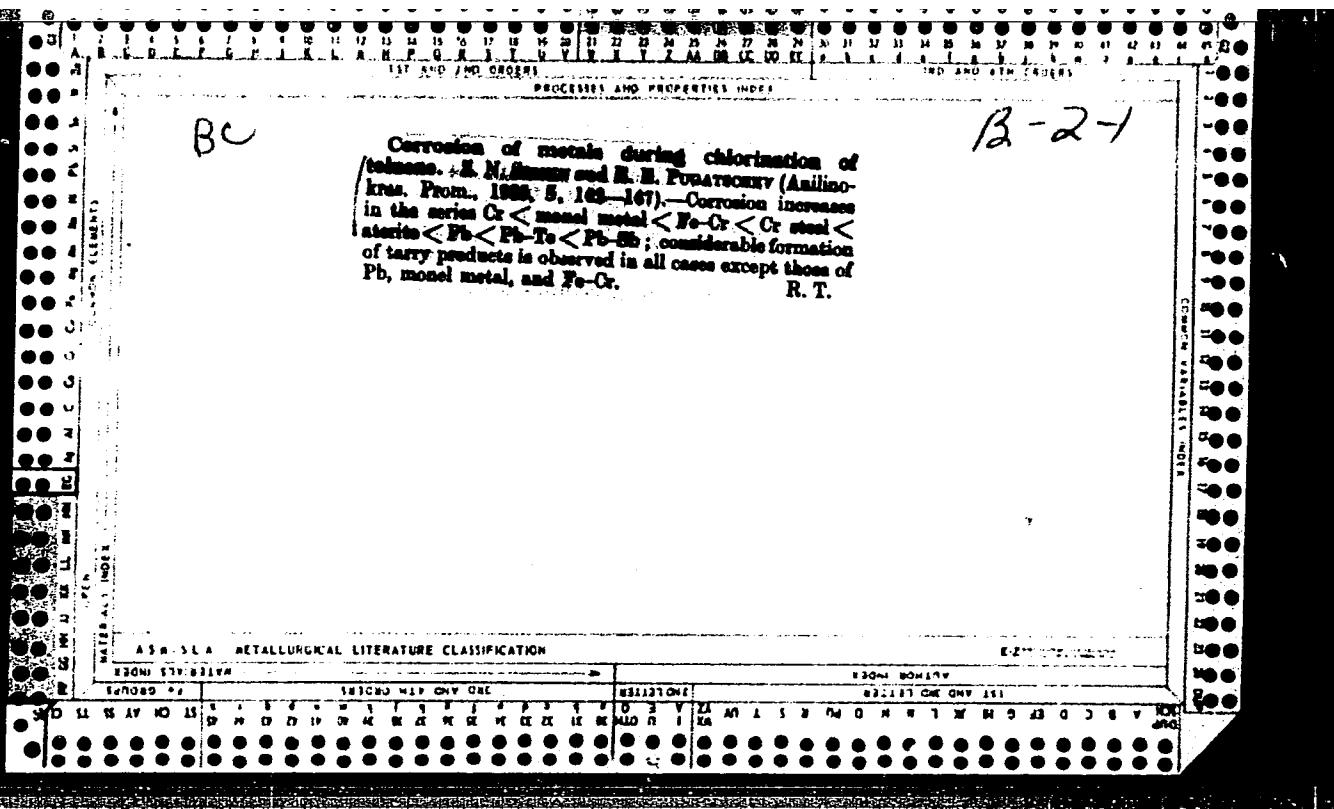
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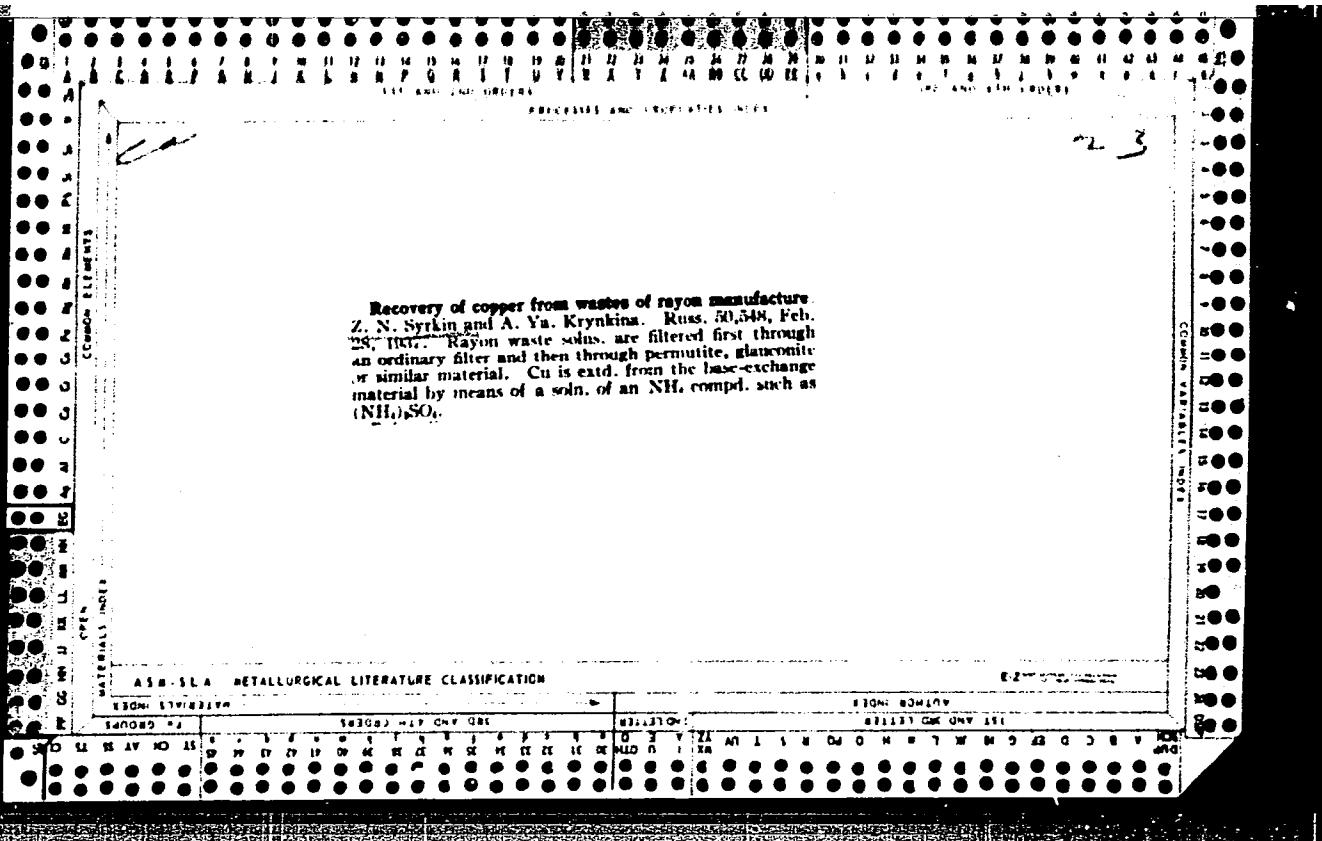
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Synthesis of amino sulfones. III. Condensation of aminoaryl sulfones with aldehydes. I. Kh. Fel'dman and Z. N. Syrkin. *Zhur. Obshchel Khim.* (J. Gen. Chem.) 19, 1389-73 (1949); cf. *C.A.*, 43, 8179i.—(p-H₂NC₆H₄)₂SO₂ heated with aldehydes in MeOH 2-4 hrs. gave the following products, either on cooling or evapn. of the solns.; most of the products had indefinite m. ps. and their identity was judged by analysis. The following p-R-NC₆H₄SO₂CH₂N₂R were prep'd. (R given): Me(CH₃)₂CH, 74% yield, m. 228-30°; Me(CH₃)₂CH₂, 83%, m. 168-60°; Me(CH₃)₂CH, 50%, m. 110-13°; p-Me₂Y-CdI₂CH₂, 63%; 4,4'-HO(MeO)CdI₂CH, 70%, m. 42-4°; 1-CdI₂CH₂, 80%, m. 74-0°; 2-furylidene, 77%, m. 300° (decompn.); 2,3,4,6-MeO(CH₂O₂)-(MeNHCH₂CH₃)CdI₂CH, 74%, m. 155-0°. Similarly, o-HOCdI₂CHO with promizole gave the (o-hydroxybenzylidene) deriv., 73%, m. 240-8°, while p-Me₂CdI₂CHO gave the (p-dimethylaminobenzylidene) deriv., 80%, m. 225-7°.

IV. Preparation of 4-nitrophenyl-2-amino-4-methyl-6-pyrimidyl sulfide and some of its derivatives. I. Kh. Fel'dman, V. M. Merlis, and Yu. M. Rozanova. *Ibid.* 1683-8.—2-Amino-4-methyl-6-chloropyrimidine (30 g.), 31 g. p-HSCdI₂NO₂, and 8 g. KOH in 300 ml. EtOH refluxed with stirring 4-5 hrs., filtered, and washed with cold H₂O, gave 70.5% 4-nitrophenyl 2-amino-4-methyl-6-pyrimidyl sulfide (I), m. 214-15° (crude), m. 216-17° (from AcOH-C₆H₆). I (3 g.) added gradually to 4 g. Fe suspended in 0.65 g. NH₄Cl in 65 ml. H₂O at 65° and stirred 4 hrs., gave after filtration and evapn. with Me₂CO 65% 4-aminophenyl analog, m. 200-2° (from abs. EtOH);

the same product may be obtained in 83% yield by reduction with Fe over Raney Ni in EtOH at room temp. and pressure. The product boiled with Ac₂O 4 hrs. gave the 4-AcNH analog, m. 229-31° (from MeOH). Similar heating of I with Ac₂O to 100° gave 68% of the N-Ac deriv. (II) of I, m. 177-9° (from MeOH), which on reduction with Fe in aq. NH₄Cl at 60° over 4 hrs. gave 67% 4-aminophenyl 2-acetamido-4-methyl-6-pyrimidyl sulfide, m. 164-0° (from abs. EtOH). Heating 26 g. II, 80 ml. Ac₂O, and 150 ml. AcOH to 65° until clear, and addn. of 62 ml. 21% H₂O₂ dropwise at 45-50°, then keeping 6 hrs. at 75-80° gave, upon filtration and concn., 61% 4-nitrophenyl 2-acetamido-4-methyl-6-pyrimidyl sulfide (III), m. 230-11° (from MeOH), sol. in H₂O₂; attempted hydrolysis with AcOH-50% H₂SO₄ at 70-5° gave only 2-amino-4-methyl-6-hydroxypyrimidine, m. 274-6°, while heating with 10% NaOH 2 hrs. at 50-5° gave the same product. Reduction of 2 g. III with 2.5 g. Fe in 45 ml. H₂O contg. 0.45 g. NH₄Cl at 60-6° for 4 hrs. gave only the above hydroxypyrimidine; the reduction could not be done with active Pt catalyst as a similar cleavage occurred and only poorly active Adams catalyst, prep'd. at 300-400° and used at room temp., gave the 4-amino analog, m. 182-5°, sol. in H₂O, MeOH, and EtOH. 4-Aminophenyl 2-amino-4-methyl-6-pyrimidyl sulfide (2 g.), 1.8 g. optanic acid, and 80 ml. EtOAc heated 3 hrs. to 60-80° gave 3.5 g. 4-meconylaminophenyl 2-amino-4-methyl-6-pyrimidyl sulfide, m. 173-5°.

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BESKOV, Sergey Dmitriyevich; prof.; BELOTSVETOV, Aleksay Vsevolodovich;
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